

Commercial Vehicle Analysis Reporting System

CVARS

**Options in building the “FARS–Like” Data
Collection System**

Background

- **Section 225 of the Motor Carrier Improvement Act of 1999 empowered the NHTSA, in cooperation with FMCSA, to improve data collection and analysis on commercial vehicle crashes**



Background (continued)

- The term “FARS-like” has been used when describing CVARS since its inception
- “FARS-like” can mean many different things to everyone
- Is it in the same vein that the word “Xerox” is commonly used in place of “photocopy”?



FARS-Like Meaning?

- “FARS-like” has many components
- Overview of the components that make up the current FARS system
- Keep in mind these are the “components” of the system, not the details of the processes involved



FARS Components

State Employee

**Census of all
State-reported
Crashes**

**Obtain Supporting
Documents**

**Dataset
(Variables)**



**United States Department of Transportation
National Highway Traffic Safety Administration**

NCSA
National Center for Statistics & Analysis
of the National Highway Traffic Safety Administration

FARS Components Detail

State Employee

- Hired by state
- Supervision by State staff
- Plus additional State duties

Census of all State-reported crashes

- Crashes that are sent from police jurisdictions to the State
- Crashes on file at the State level

Obtain Supporting Documents

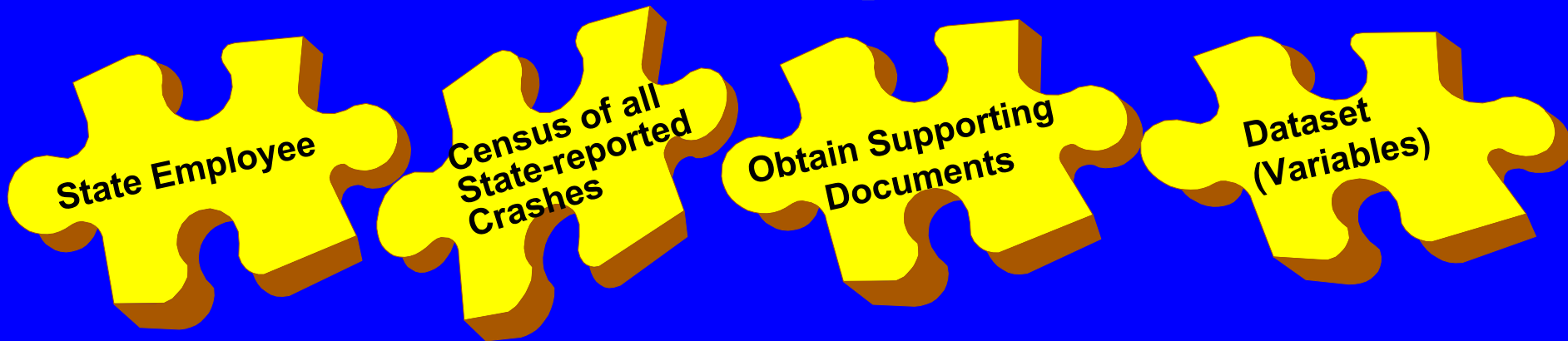
- Driver Records
- Carrier Information
- Etc.

Dataset (Variables)

- Coding
- Attributes
- Uniformity



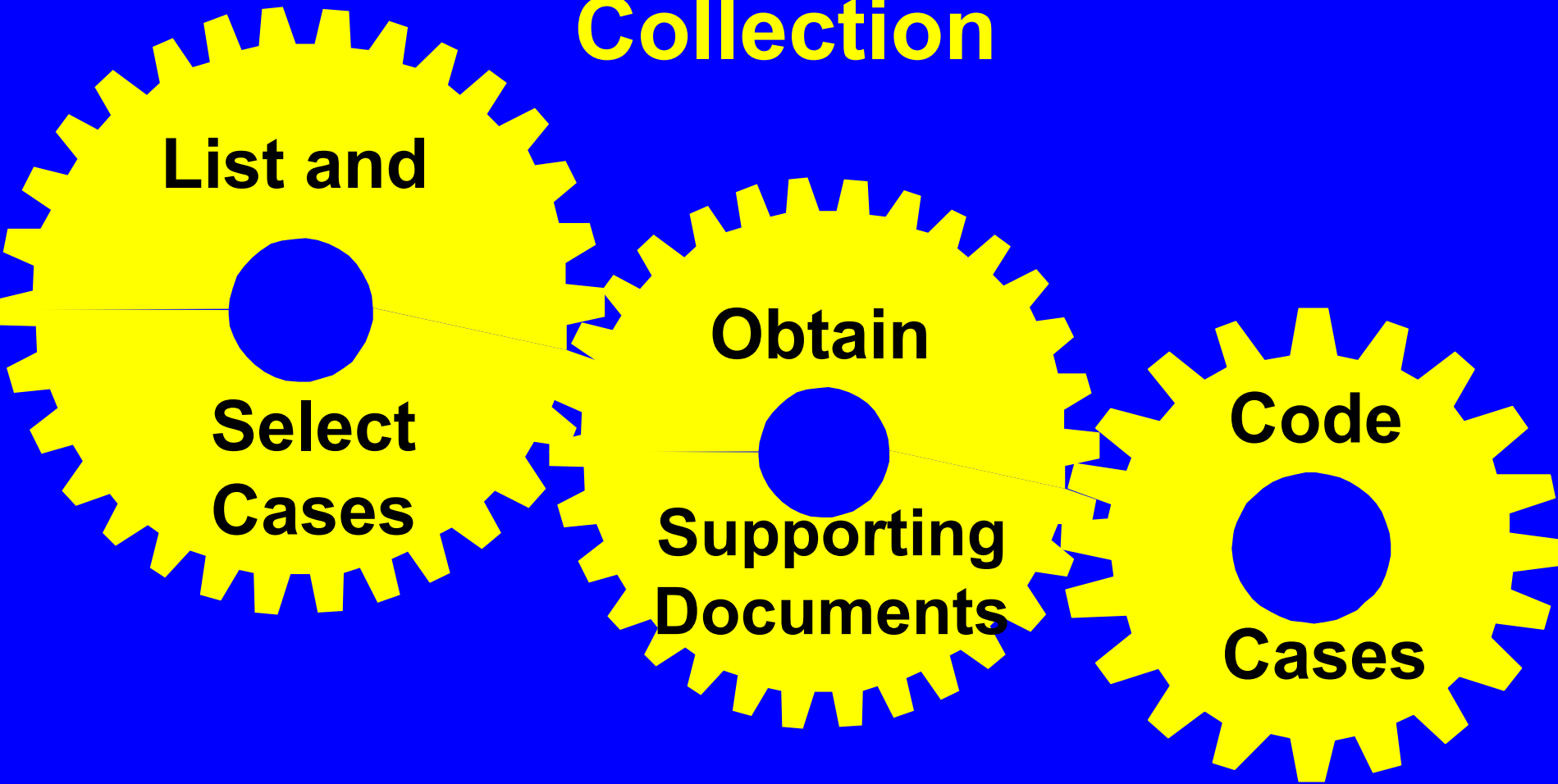
FARS Components



- There are many sub-components under each of these that make up the FARS system
- These major components constitute the overall structure



“Gears” That Drive Data Collection



**United States Department of Transportation
National Highway Traffic Safety Administration**

NCSA
National Center for Statistics & Analysis
of the National Highway Traffic Safety Administration

CVARS Components



Personnel

**State-reported
Crashes**

**Obtain Supporting
Documents**

**Dataset
(Variables)**

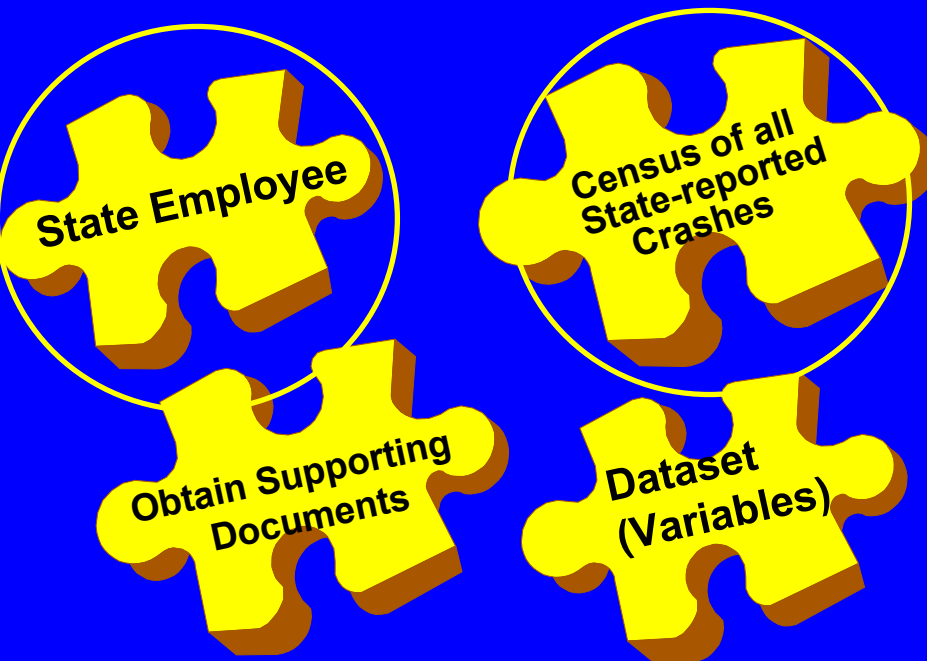


**United States Department of Transportation
National Highway Traffic Safety Administration**

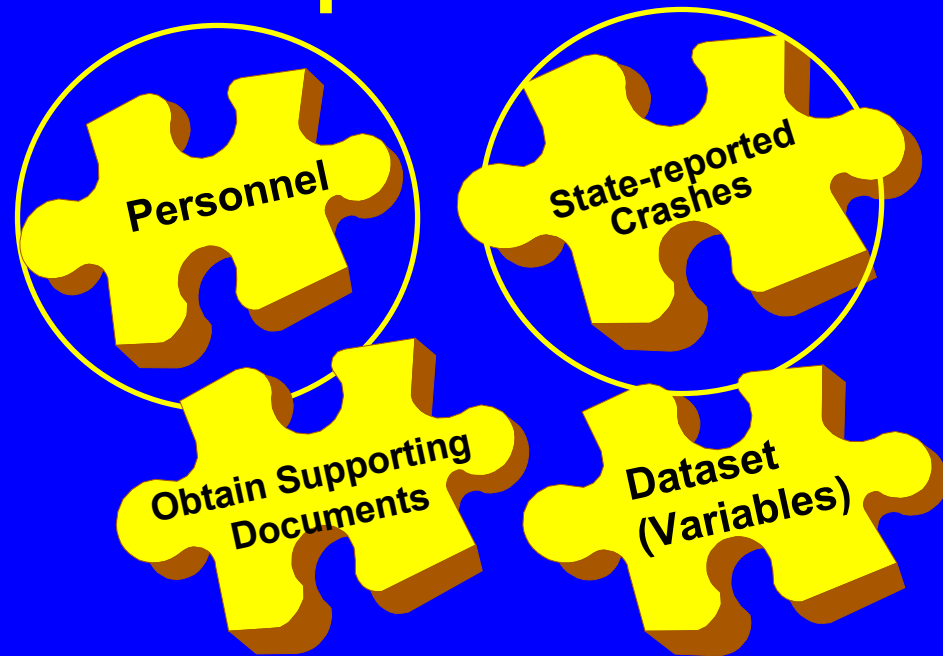
NCSA
National Center for Statistics & Analysis
of the National Highway Traffic Safety Administration

Components Compared

FARS Components



CVARS Components



United States Department of Transportation
National Highway Traffic Safety Administration

NCSA
National Center for Statistics & Analysis
of the National Highway Traffic Safety Administration

Why Consider Other Options?

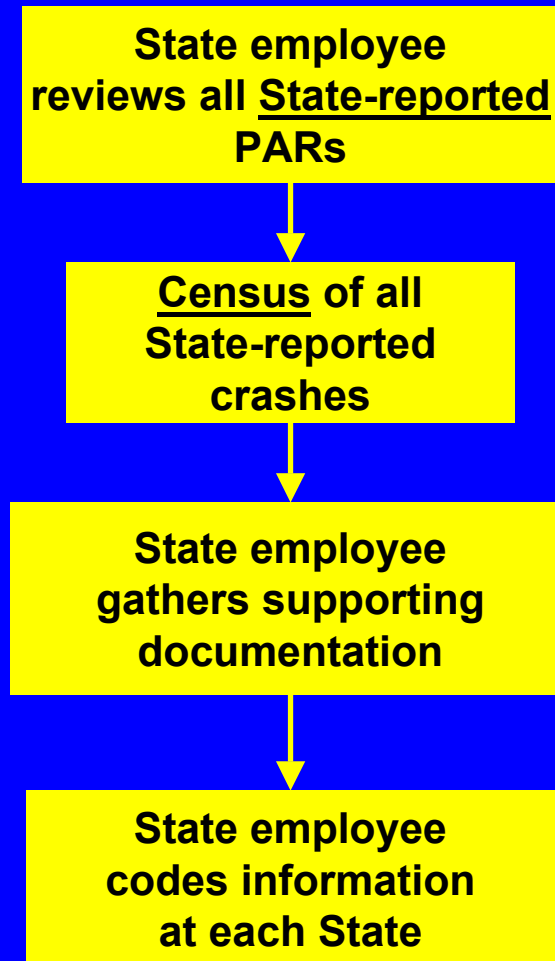
Concerns

1. **FARS issues and shortcomings**
2. **FARS system relies on the States having their act together**
3. **State's availability of resources and budget pressures (due to 9/11)**



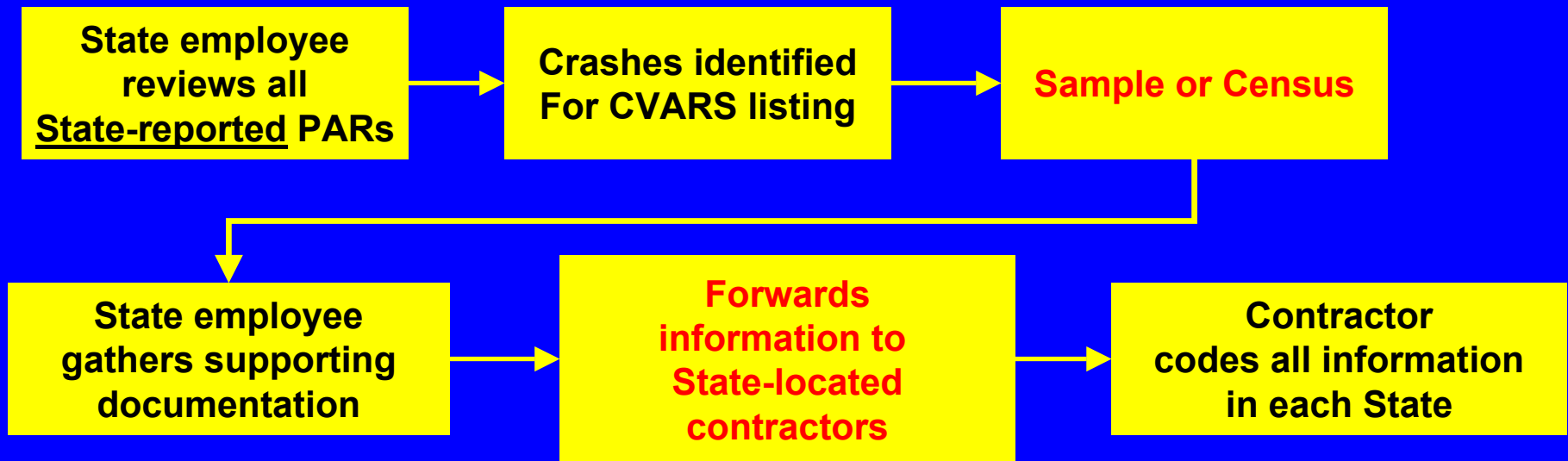
Option 1 for CVARS to Consider

FARS / CVARS System



Option 2 for CVARS to Consider

State Reviews, Contractor Codes at State



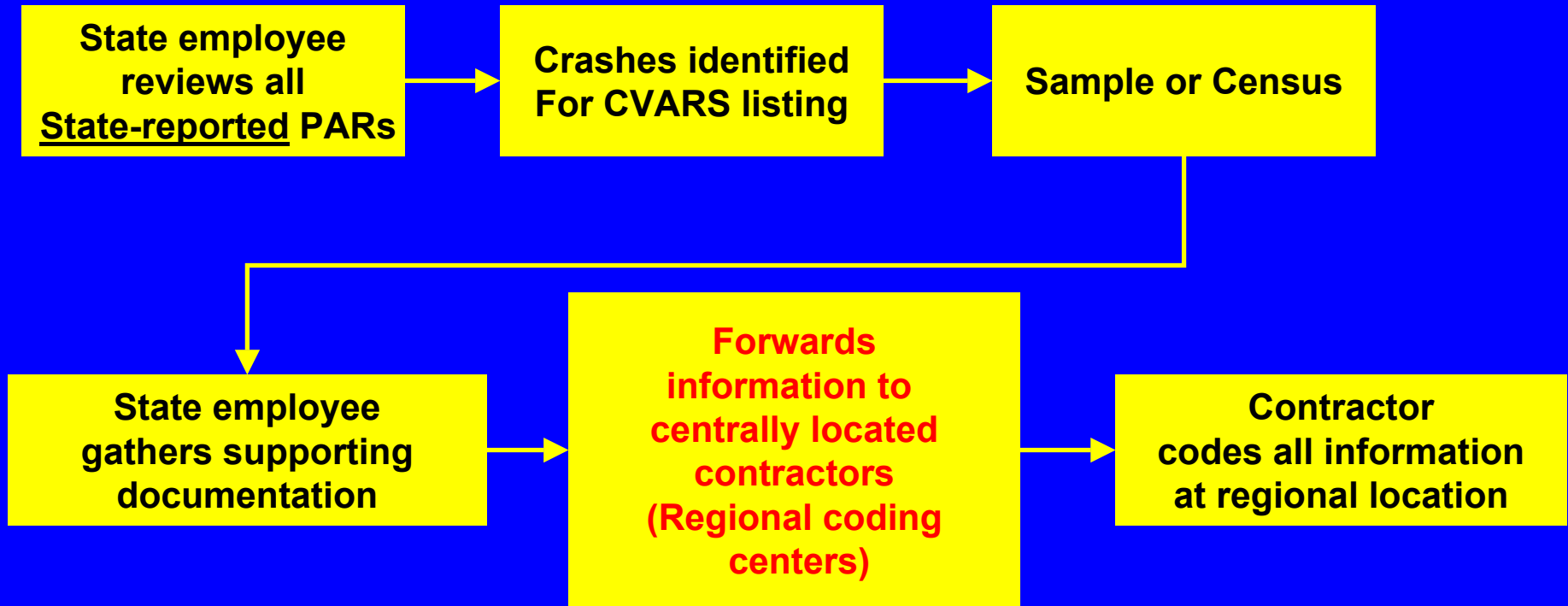
Why this option?: Addresses “Concern” #1



United States Department of Transportation
National Highway Traffic Safety Administration

Option 3 for CVARS to Consider

State Reviews, Contractor Regionally Codes



Why this option?: Addresses “Concern” #1

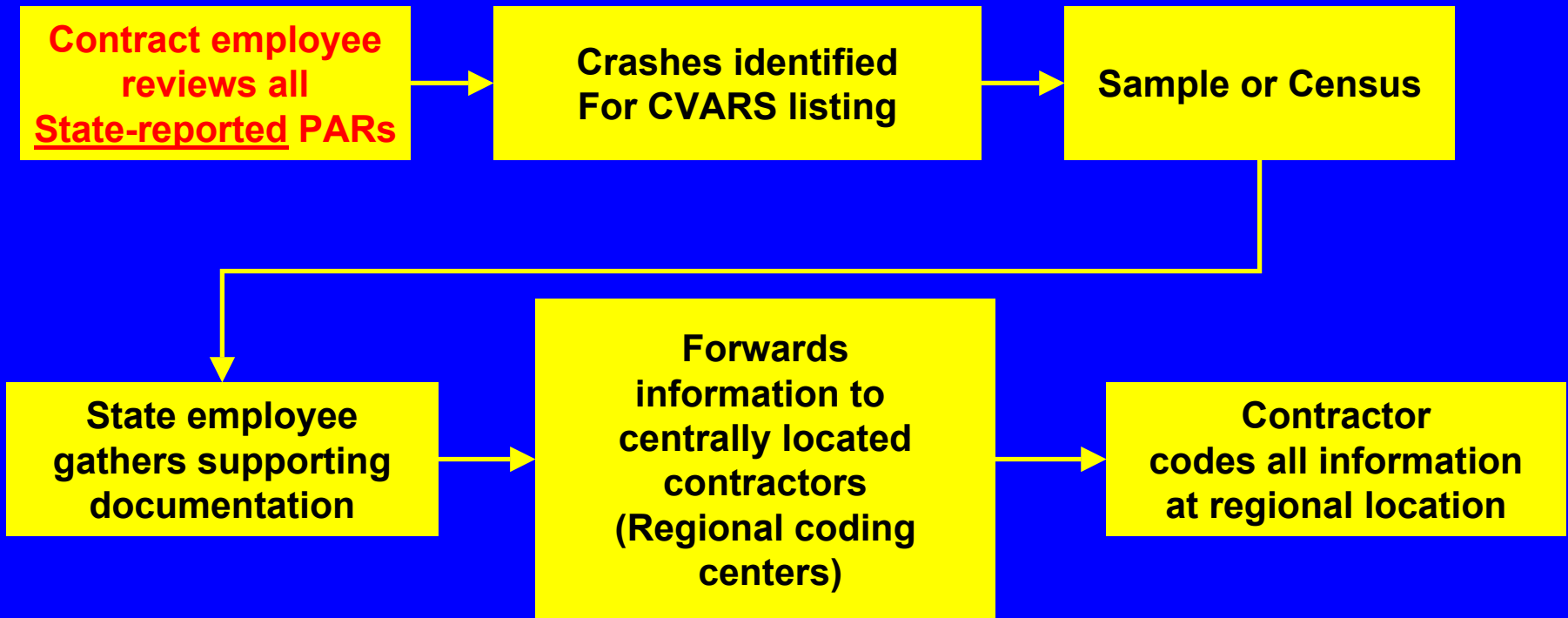


United States Department of Transportation
National Highway Traffic Safety Administration



Option 4 for CVARS to Consider

Contractor Reviews at State, Regionally Coded



Why this option?: Addresses “Concerns” #1 and #2

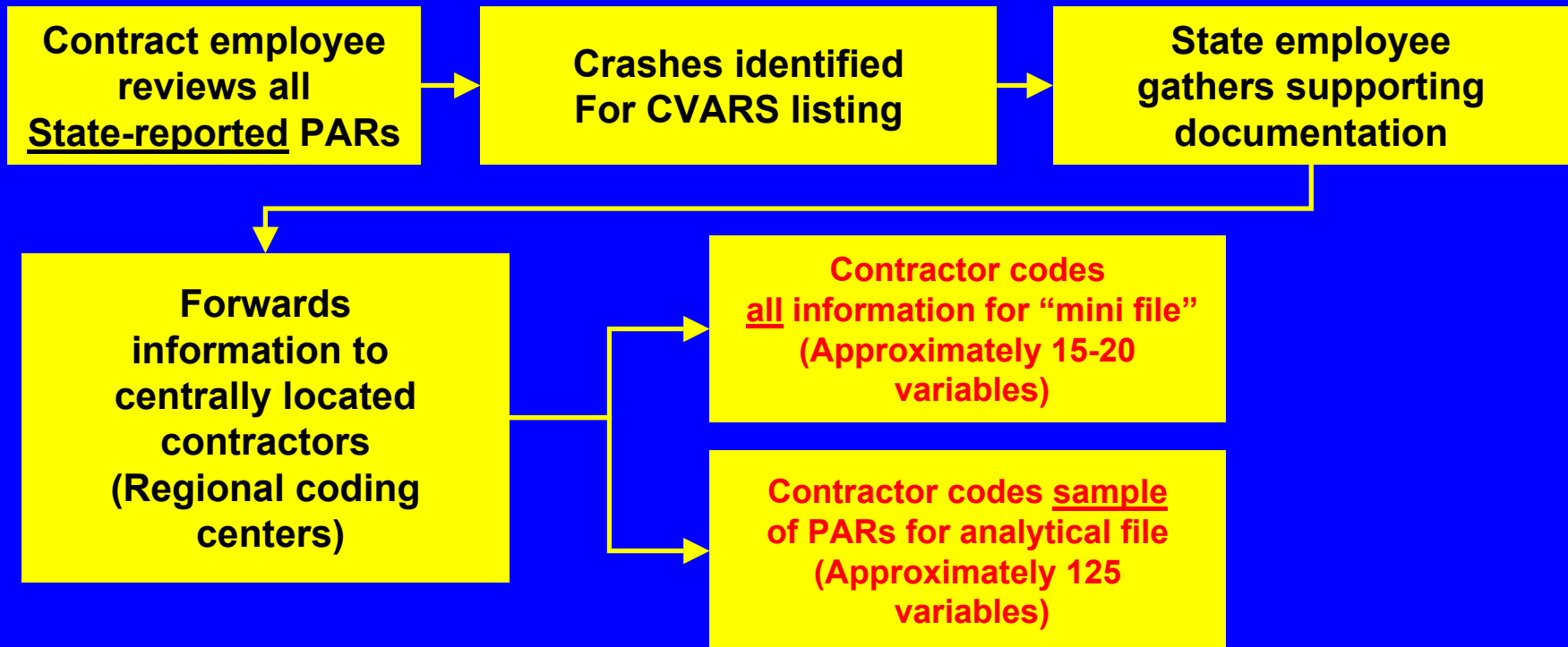


United States Department of Transportation
National Highway Traffic Safety Administration



Option 5 for CVARS to Consider

Contractor Reviews at State, Regionally Coded for All
“mini file” Variables / Sample of Other Crashes Coded

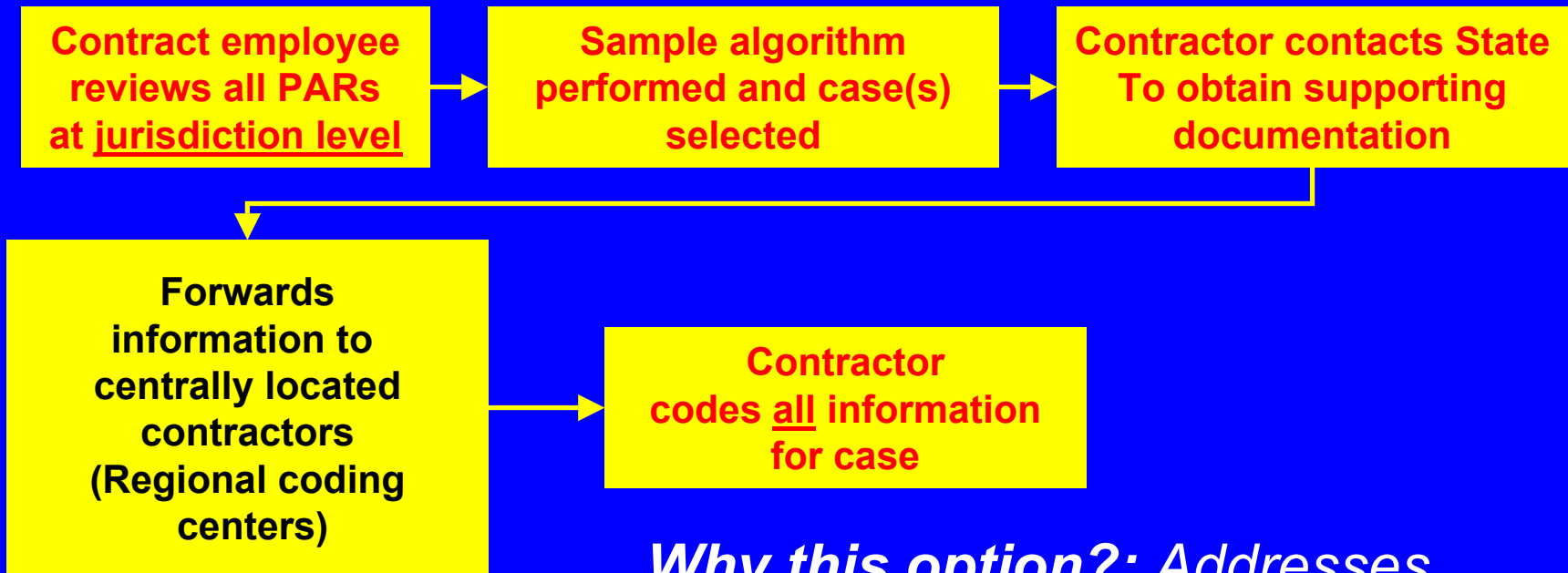


Why this option?: Addresses “Concerns” #1 and #2



Option 6 for CVARS to Consider

Sample-Only Option: Full GES-Type System Utilizing Crashes at Sampled Police Jurisdiction Level (not just state-reported)



Why this option?: Addresses “Concerns” #1, #2, and #3 (major impact on #3)



Comparison of Each Option

Option	Risk of Delay in Start of Data Collection	Efficiency of Data Reporting	Cost (Census Approach)	Overall Feasibility Low (1) –High (5)
1 Mirror FARS				
2 State employee reviews forwards to State-located contractor				
3 State Employee reviews PAR's forwards to regional contractor				
4 Contractor Reviews all PAR's				
5 Contractor Reviews Regionally Coded for "all mini file" Sample of all others				
6 GES-like (Sample Approach)				



Comparison of Each Option

Option	Risk of Delay in Start of Data Collection	Efficiency of Data Reporting	Cost (Census Approach)	Overall Feasibility Low (1) –High (5)
1 Mirror FARS	Very High	Low	Very High \$23 – \$25 Million	★
2 State employee reviews forwards to State-located contractor	High	Low	High Less than Option 1	★★
3 State Employee reviews PAR's forwards to regional contractor	High	Low	High Less than Option 2	★★★
4 Contractor Reviews all PAR's	Low	Medium	Medium Less than Option 3	★★★★
5 Contractor Reviews Regionally Coded for "all mini-file" Sample of all others	Low	Medium	Low – Medium Less than Option 4	★★★★★
6 GES-like (Sample Approach)	Low	High	Low (Sample) \$1.5 – \$2.0 Million	★★★★★

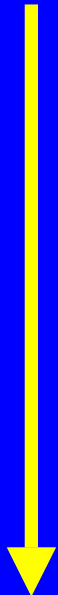


Estimated Feasibility Utilizing:

Sample Approach

Census Approach

Very Feasible



Option 6

Option 5

Option 4

Option 3

Option 2

Option 1

Option 5

Option 4

Option 3

Option 6*

*Census of Selected States

Option 2

Option 1

Feasibility



Least Feasible



United States Department of Transportation
National Highway Traffic Safety Administration

NCSA
National Center for Statistics & Analysis
of the National Highway Traffic Safety Administration

CVARS Modular Design

- **The Components of CVARS are modular:**
 - State Employee to list State-reported PARs at State level
 - Contract employee to list State-reported PARs at State level
 - Contract employee list all PARs at selected jurisdiction level
 - Coding at the State level
 - Coding at central level (Regional Coding Center)
 - Supporting documents gathered by State personnel
 - Supporting documents requested by contractor for all cases
 - Supporting documents requested on sampled cases



Pilot Test Phase

- **Begin Option 1 (cooperative agreements) with a couple of pilot states**
- **NCSA believes option 4 should be tested in a couple of pilot states**

(Option # 4: Contractor Reviews files for applicable CVARS PARS and forwards them to a regional coding facility)



Questions?

Questions
and
Answers



United States Department of Transportation
National Highway Traffic Safety Administration

